Application ID:

D H E C PROMOTE PROTECT PROSPER	Mining Form MR-500	S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL BUREAU OF LAND AND WASTE MANAGEMENT DIVISION OF MINING AND SOLID WASTE PERMITTING 2600 Bull Street, Columbia, SC 29201 Telephone Number: (803) 896-4261 Fax Number: (803) 896-4001

RECLAMATION PLAN
DHEC FORM 500 DATE VERSION ADOPTED 7/1/94

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As required in Section 48-20-90 of the South Carolina Mining Act, "An operator shall submit with his application for an operating permit a proposed reclamation plan. The reclamation plan for an operating permit only must be furnished to the local soil and water conservation district in which the mining operation is to be conducted. The plan must include as a minimum each of the elements specified in the definition of 'reclamation plan' in Section 48-20-40 and information required by the department. The reclamation plan must provide that reclamation activities, particularly those relating to control of erosion, to the extent feasible, must be conducted simultaneously with mining operations and be initiated at the earliest practicable time after completion or termination of mining on a segment of the permitted land. The plan must provide that reclamation activities must be completed within two years after completion or termination of mining on each segment of the area for which an operation permit is requested unless a longer period specifically is permitted by the department."

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RECEIVED
MAY 24 2011
DIVISION OF MINING & SOLID WASTE MANAGEMENT
BL&WM

I. APPLICANT INFORMATION

1. Name of Company: Dillon County

2. Name of Proposed Mine: Old River Road Mine County: Dillon

3. Home Office Address: 109 S. 3rd Avenue PO Box 349 843-774-1400
(Street and P.O. Box) (Telephone No.)

Dillon SC 29536 843-774-1443
(City) (State) (Zip Code) (Fax No.)

4. Local Office Address: Same as above
(Street and P.O. Box) (Telephone No.)

(City) (State) (Zip Code) (Fax No.)

5. Name of company personnel and their title to be the contact for official business and correspondence: Ms. Lisa Gray, Dillon County, Clerk to Counsel

6. Location of Mine: 2702 Old River Road, S-17-42 Fork, SC
State or County Hwy No. Nearest Town or City

II. ENVIRONMENTAL PROTECTION

1. Describe practices to protect adjacent resources such as roads, wildlife areas, woodland, cropland and others during mining and reclamation.

Old River Road, S-17-42 will be protected by establishing a minimum 200' wide buffer between the road and the mine site. A new access road will be constructed from Old River Road for site ingress and egress which will limit effects on adjacent properties. Additionally buffers of 50' will be maintained around the proposed mine site to protect any adjacent croplands, wetlands, adjacent woodlands and wildlife areas.

2. Describe proposed methods to limit significant adverse effects on adjacent surface water and groundwater resources.

No significant adverse effects on adjacent surface water is anticipated. All runoff from the mine activity will be returned initially to the mine. Any storm water/ ground water will be removed from the mine and transferred to a sump pond for holding and settling. From the sump pond the water will be pumped to a ditch and drain to nearby wetlands for additional holding and settling. From the wetlands, water will move gradually toward the Little Pee Dee River. We anticipate no adverse effects on adjacent surface water of ground water.

3. Describe proposed methods to limit significant adverse effects on known significant cultural or historic sites within the proposed permitted area.

No sites have been identified within the project area. A cultural resource survey was recently completed by Brockington and Associates and no sites of concern were identified in the project area.

4. Describe method to prevent or eliminate conditions that could be hazardous to animal or fish life in or adjacent to the permitted area.

It is anticipated that no conditions that could be hazardous to animal or fish life will develop as a result of the mining activity. It has been our experience that fish and wildlife flourish in and around this type of mine site. Current and recent mine sites in this area are a host to several species of fish and wildlife. It is expected that this site, as other sites have, will provide foraging habitat for bald eagles.

5. Describe how applicant will comply with State air quality and water quality standards as established by the S.C. Department of Health and Environmental Control.

Airborne dust is the only air quality control problem that may be associated with the proposed site. To alleviate this potential problem, access roads may be watered down during dry periods to settle sand and dirt. MSHA air quality testing has shown virtually no air quality problems at the current plant. We would anticipate the same result at the proposed site. Because there will be no surface water discharge, no adverse impact on water quality is expected.

III. RECLAMATION OF AFFECTED AREA

6. State useful purpose(s) the affected land is being proposed for reclamation. More than one purpose may be checked, but information should be submitted to support the feasibility for each proposed purpose.

a. Lake or pond ☑ _____ f. Grassland ☑ _____

b. Agriculture ☐ _____ g. Recreation ☐ _____

c. Woodlands ☐ _____ h. Wetlands ☐ _____

d. Residential ☐ _____ i. Park ☐ _____

e. Commercial ☐ _____ j. Other ☐ _____

7. State the final maximum surface gradient(s) (slope) in soil, sand, or other unconsolidated materials on reclaimed land. Surface gradients steeper than 3H:1V (18 degrees or 33 percent) may be required to submit geotechnical data and studies to demonstrate that the steeper slopes will remain stable following final reclamation.

3H:IV

8. How will the final slopes in unconsolidated material be accomplished? If the slope will be by backfilling, demonstrate that there is adequate material to accomplish the stated final gradient. If gradient is to be achieved by bringing in material from outside the permitted area, state the nature of the material and approximate quantities. If the gradient is to be achieved by grading, show that there is adequate area for grading to achieve gradient (i.e., adequate distance between the property line and edge of highwall). Operator should show calculations or other appropriate information to demonstrate that there is adequate materials in backfilling and grading to meet the requirements for final slope.

Final grading will be accomplished using the on-site overburden along pond edges.

9. Describe the plan for revegetation or other surface treatment of affected area(s). The revegetation plan shall include but not be limited to the following: (a) planned soil test; (b) site preparation and fertilization; (c) seed or plant selection; (d) rate of seeding or amount of planting per acre; (e) maintenance.

(a) This proposed site is located in close proximity to other past mine/pond sites. This site is very similar to other sites in elevation, soil type and sand deposits. No formal testing is planned because we anticipate a soil pH of approximately 7 as occurred on other sites.

(b) Site preparation will consist mainly of grading and dragging along the pond edge. No additional fertilization is planned, due to expected pH and lime content of the soil.

(c) Other reclaimed mine sites in the area have revegetated naturally. Local indigenous plant species provide an excellent ground cover within reclamation time-tables. Sparse growth areas will be planted with acceptable reclamation species such as rye grass and brown top millet.

(d) Rye grass - 1.1 lbs. per 100 sq. ft., brown top millet- 10 lbs. per acre.

(e) No specific maintenance is expected.

10. Provide, as a separate document, a closure plan of the mine and permitted facilities to prevent a release of contaminants from being harmful to the environment. A closure plan is not necessary for all mines, but is required where the possibility exists for (a) acid rock drainage; (b) where the National Pollutant Discharge Elimination Systems (NPDES) Permit has discharge limitation parameters other than pH and Total Suspended Solids (TSS); (c) chemically treated tailings or stockpiles (excludes fertilizer or lime for revegetation purposes).

    N/A

11. Method of control of contaminants and disposal of mine waste soil, rock, mineral, scrap, tailings, slimes, and other material directly connected with the mining, cleaning, and preparation of mineral substances mined and includes all waste materials deposited on or in the permit area from any source.

    There will be no contaminants, waste soil, rock, minerals, scrap or slime produced that will necessitate disposal.

12. Method of reclaiming settling and/or sediment ponds.

    The sump pond will be within the mine site and will be incorporated into and reclaimed as a portion of the lake.

13. Describe method of restoration or establishment of stream channels, stream banks and site drainage to a condition minimizing erosion, siltation and other pollution.

    N/A. There is no need to restore or establish stream channels or site drainage as the current site has neither.

14. What are the maintenance plans to insure that the reclamation practices established on the affected land will not deteriorate before released by the Department?

    Natural vegetation will be used as primary ground cover with additional planting in sparse growth areas. With this planting/reclamation scheme it is unlikely that there will be any deterioration before release.

15. For final reclamation, submit information about practices to provide for safety to persons and to adjoining property in all excavations. Identify areas of potential danger (vertical walls, unstable slopes, unstable surface on clay slimes, etc.) and provide appropriate safety provisions. These provisions can include but are not limited to setbacks, fencing, signs, benching, guardrails and boulders.

    There are no direct adjacent residential properties. The proposed site is bounded by Old River Road to the south and agricultural or wooded tracts on other sides. The only public exposure to the site is along Old River Road. Public access to the site will be restricted by the 200' buffer and a locked gate at the site access road.

16. What provisions will be taken to prevent noxious, odious, or foul pools of water from collecting and remaining on the mined area? For mines to be reclaimed as lakes or ponds, provide supporting information that a minimum water depth of four (4) feet on at least fifty percent (50%) of the pond surface area can be maintained.

    All nearby mining tracts have had a deposit depth of at least eight + feet. Random exploration drilling on the proposed site have produced results that are consistent with that expectation. All previous tracts have pond depths of eight to ten + feet. Similar pond depths are expected for this site.

17. Identify any structures (e.g. buildings, roads) that are proposed to remain as part of final reclamation. Provide justification for leaving any structures.

No structures will remain.

18. Attach **two (2)** copies of a map of the area (referred to as the RECLAMATION MAP) that shows the reclamation practices and conservation practices to be implemented. The following should be shown:

A. The outline of the proposed final limits of the excavation during the number of years for which the permit is requested.

B. The approximate final surface gradient(s) and contour(s) of the area to be reclaimed. This would include the sides and bottoms of mines reclaimed ponds and lakes.

C. The outline of the tailings disposal area.

D. The outline of disposal areas for spoil and refuse (exclusive of tailings ponds).

E. The approximate location of the mean shore line of any impoundment or water body and inlet and/or outlet structures which will remain upon final reclamation.

F. The approximate locations of access roads, haul roads, ramps or buildings which will remain upon final reclamation.

G. The approximate locations of various vegetative treatments.

H. The proposed locations of re-established streams, ditches or drainage channels to provide for site drainage.

I. The proposed locations of diversions, terraces, silt fences, brush barriers or other Best Management Practices to be used for preventing or controlling erosion and off-site siltation.

J. Proposed locations of the measures to provide safety to persons and adjoining property.

K. Segments of the mine that can be mined and reclaimed as an ongoing basis.

L. The boundaries of the permitted area.

M. The boundaries of the affected area for the anticipated life of the mine.

N. The boundaries of the 100-year floodplain, where appropriate.

O. Identify sections of mine where the final surface gradient will be achieved by grading and/or backfilling.

P. A legend showing the name of the applicant, the name of the proposed mine, the north arrow, the county, the scale, the date of preparation and the name and title of the person who prepared the map.

THE REQUIRED RECLAMATION MAP SHALL HAVE A NEAT, LEGIBLE APPEARANCE AND BE OF SUFFICIENT SCALE TO CLEARLY SHOW THE REQUIRED INFORMATION LISTED ABOVE. THE BASE FOR THE MAP SHALL BE EITHER A SPECIALLY PREPARED LINE DRAWING, AERIAL PHOTOGRAPH, ENLARGED USGS TOPOGRAPHIC MAP OR A RECENTLY PREPARED PLAT. RECLAMATION MAP SHOULD BE THE SAME SCALE USED FOR THE SITE MAP.

IV. SCHEDULE FOR IMPLEMENTATION OF CONSERVATION AND RECLAMATION PRACTICES

19. As stated in Section 48-20-90 of the S.C. Mining Act, reclamation activities, to the extent feasible, must be conducted simultaneously with mining operations. Identify which areas or segments of the mine are not feasible to reclaim simultaneously with mining. Provide reasons why reclamation can not proceed simultaneously with mining in these areas.

20. Section 48-20-40(16)(l) of the S.C. Mining Act requires a "time schedule, including the anticipated years for completion of reclamation by segments." This time schedule should meet the requirements of Section 48-20-90 of the Mining Act.

SCHEDULE FOR IMPLEMENTING CONSERVATION AND RECLAMATION PRACTICES

Conservation & Reclamation Practices	Segment # or Area	Planned		*Applied		Notes
		Amount	Year	Amount	Month/Year	
Establish mine boundaries and mark buffer Construct access road and put down stone mat. Observe BMP's.	001		2011			LOM
Mine area cleared if necessary Identify permanant survey markers.	001	10-acres	2011			AA
Grading to remove overburden	001		2011			AA
Excavate initial mine area and sump pond and slope mine for water return install floating pump. Place any overburden near mine.	001	0.1 ac	2011			Sump pond acreage is included within area identified as mine site.
Final grading of side/reclamation slopes	001	0.74-ac 38504 linear feet	2011			Side slopes will be reclaimed as an ongoing process.
Allow natural vegetation one growing season	001		2012			BMP's
Apply ground covers to sparse areas	001		2012			BMP's
Inspect, repair, maintain until released.	001		2013			LOM

Notes:
1. Two permanent survey markers within the permitted area shall be located at least 100 feet apart as required in R.89-130.
2. Markers should be located prior to the start of mining. Permanently flag buffers associated with archaeological site, road and utility easement
3. Install a crushed stone apron (minimum 50') to prevent tracking of mud on road
4. Minimize the amount of disturbed acreage to reduce the potential for offsite sediment and erosion control concerns.
5. Reclamation of mined out areas should be initiated within 180 days of termination of mining in those areas or earlier if grading/ soil preparation/ seeding is feasible; amount of affected acreage must be minimized.
6. Mine and reclamation maps, reclamation schedule must be revised a minimum of 3 months prior to initiating activity in reserves.

Note 1 - Best Management Practices shall be installed and maintained as necessary to ensure stormwater is retained on site
Note 2 - Sediment basin shall be cleaned of sediment as necessary to ensure basin is functioning properly
Note 3 - Slopes shall be graded as excavations progress
Note 4 – Reclamation/ vegetation shall be inspected on a regular basis and corrective measures taken to prevent erosion of final slopes

AA – Affected Area BMPs – Best Management Practices LOM – Life of Mine PA – Permitted Area PL – Property Line ST – Sediment Traps
SW – Stormwater TS – Topsoil WL – Wetlands

* Completed by the Department

YOU ARE NOTIFIED THAT:

1) You, the operator, must file an application to modify the reclamation plan in the event actual reclamation varies from the set forth hereinabove; *and*

2) If at any time it appears to the Department that the activities under the reclamation plan are failing to achieve the purposes and requirements of the S.C. Mining Act, the Department may modify the RECLAMATION PLAN in accordance to Section 48-20-150.

_____
Signature of Applicant/Operator or his Authorized Representative

Dillon County
Printed Name of Applicant/Operator or his Authorized Representative

County Administrator
Title

04/08/11
Date

Department Use Only

Permit No.: _____ Date Application Approved: _____ Date Bond Rec'd: _____

Bond Amount: _____ Blanket or Single Bond: _____ Permit Issuance Date: _____

ACTION TAKEN ON THIS RECLAMATION PLAN

_____ Approved _____ Denied _____ Approved with Additional Terms and Conditions

By: _____
DIVISION DIRECTOR

Date: _____